

BEFORE THE
PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

IN THE MATTER OF:

Application of Duke Energy Progress,
LLC for Adjustments in Electric Rate
Schedules and Tariffs and Request for
an Accounting Order

)
)
)
)
)
)

DOCKET NO. 2018-318-E

Direct Exhibits

of

JEFFRY POLLOCK

On Behalf of

Nucor Steel – South Carolina

March 4, 2019



J. POLLOCK
INCORPORATED

EXHIBIT LIST

Pollock Exhibits	Description
1	DEP's Proposed Class Revenue Allocation By Rate
2	Derivation of Surplus Depreciation Reserve
3	Adjustment to Revenue Requirement Assuming a Ten-Year Amortization of the Surplus Reserve
4	Revised Depreciation Accruals Assuming a Ten-Year Amortization
5	Illustration Showing the Impact of Amortizing a Depreciation Surplus
B-1	Estimated Impact of Recognizing Curtailable Service on DEP's Class Cost-of-Service Study Results
B-2	Estimated Firm Peak Demand Allocation Factors

DUKE ENERGY PROGRESS, LLC
DEP's Proposed Class Revenue Allocation By Rate
Twelve Months Ended December 31, 2017
(Dollar Amounts in Thousands)

Line	Rate Class	Present Base Revenues	Proposed Base Revenues	Increase	
		(1)	(2)	Amount (3)	Percent (4)
	Residential				
1	RES	\$212,623	\$242,379	\$29,756	14.0%
2	R-TOUD	\$3,775	\$4,311	\$536	14.2%
3	Total Residential	\$216,398	\$246,690	\$30,292	14.0%
	Small General Service				
4	SGS	\$31,035	\$35,823	\$4,788	15.4%
5	GS	\$425	\$500	\$76	17.8%
6	Total SGS	\$31,460	\$36,324	\$4,864	15.5%
7	SGS Constant Load	\$373	\$446	\$73	19.6%
	Medium General Service				
8	MGS	\$53,607	\$57,217	\$3,610	6.7%
9	SGS-TOU	\$83,612	\$89,788	\$6,177	7.4%
10	CSE	\$170	\$183	\$13	7.4%
11	CSG	\$5	\$5	\$1	20.9%
12	Total MGS	\$137,393	\$147,193	\$9,800	7.1%
	Large General Service				
13	LGS	\$49,234	\$53,886	\$4,651	9.4%
14	LGS-TOU	\$48,729	\$53,330	\$4,601	9.4%
15	LGS-CUR-TOU	\$29,987	\$33,069	\$3,081	10.3%
16	Total LGS	\$127,951	\$140,284	\$12,334	9.6%
17	Seasonal & Intermittent Service	\$2,009	\$2,134	\$125	6.2%
18	Traffic Signal Service (TSS)	\$70	\$90	\$20	28.8%
19	Area Lighting Service (ALS)	\$14,068	\$14,676	\$608	4.3%
	Street Lighting Service (SLS)				
20	SLS	\$3,553	\$4,018	\$465	13.1%
21	SLR	\$601	\$680	\$79	13.1%
22	Total SLS	\$4,154	\$4,698	\$543	13.1%
23	Sports Field Lighting Service	\$39	\$37	(\$2)	-5.2%
24	Total South Carolina Retail	\$533,914	\$592,572	\$58,657	11.0%

DUKE ENERGY PROGRESS
Derivation of Surplus Depreciation Reserve
At December 31, 2016
(Amounts in \$000)

Line	Function	Total Company			South Carolina			Annual Accrual	Accrual Years
		Theoretical Reserve	Book Reserve	Difference	Theoretical Reserve	Book Reserve	Difference		
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Steam Production	\$1,641,833	\$1,921,734	\$279,901	\$157,092	\$183,873	\$26,781	\$13,671	2.0
2	Nuclear Production*	\$3,469,767	\$3,891,211	\$421,444	\$331,990	\$372,314	\$40,324	\$20,752	1.9
3	Other Production	\$634,876	\$412,533	(\$222,343)	\$60,745	\$39,471	(\$21,274)	\$12,918	-1.6
4	Hydraulic Production	\$55,399	\$44,400	(\$10,999)	\$5,301	\$4,248	(\$1,052)	\$402	-2.6
5	Total Production	\$5,801,875	\$6,269,877	\$468,003	\$555,128	\$599,907	\$44,779	\$47,743	0.9
6	Transmission	\$637,682	\$794,310	\$156,628	\$59,332	\$73,905	\$14,573	4,234	3.4
7	Distribution	\$2,313,024	\$3,031,242	\$718,219	\$287,441	\$376,694	\$89,253	17,947	5.0
8	General	\$333,110	\$317,549	(\$15,561)	\$36,308	\$34,612	(\$1,696)	\$3,322	-0.5
9	Total	\$9,085,690	\$10,412,979	\$1,327,288	\$938,209	\$1,085,118	\$146,909	\$73,246	2.0

Source: Doss Exhibit 2b and Exhibit 3

* Adjusted for Harris Disallowance

DUKE ENERGY PROGRESS
Adjustment to Revenue Requirement Assuming
an Ten-Year Amortization of the Surplus Reserve
(Amounts in \$000)

<u>Line</u>	<u>Description</u>	<u>Amount</u>	<u>Source</u>
		(1)	(2)
1	Surplus Reserve at December 31, 2016	\$146,909	Pollock Exhibit 5, Col 6, Line 9
2	Amortization Period (Years)	10	
3	Decrease Depreciation Expense / Increase in Net Plant	\$14,691	Line 1 ÷ Line 2
4	Proposed Rate of Return	7.473%	Bateman Exhibit 1, page 2
5	Revenue Requirement Conversion Factor	1.3384	Bateman Exhibit 1, page 2
6	Impact of Increase in Net Plant	\$1,469	Line 3 x Line 4 x Line 5
7	Adjustment to Depreciation Rates	\$5,776	Pollock Exhibit 7, Col 6, Line 9
8	Net Impact on Revenue Requirements	(\$7,446)	Line 6 + Line 7 - Line 3

DUKE ENERGY PROGRESS
Revised Depreciation Accruals Assuming a Ten-Year Amortization
At December 31, 2016
(Amounts in \$000)

Line	Function	Total Company Annual Accruals			South Carolina Jurisdiction Annual Accruals		
		Theoretical Reserve	Actual Reserve	Difference	Theoretical Reserve	Actual Reserve	Difference
		(1)	(2)	(3)	(4)	(5)	(6)
1	Steam Production	\$162,968	\$142,885	\$20,083	\$15,593	\$13,671	\$1,922
2	Nuclear Production	\$237,131	\$216,884	\$20,246	\$22,689	\$20,752	\$1,937
3	Other Production	\$121,971	\$135,007	(\$13,036)	\$11,670	\$12,918	(\$1,247)
4	Hydraulic Production						
5	Total Production	\$522,069	\$494,776	\$27,293	\$49,952	\$47,341	\$2,611
6	Transmission	48,922	45,500	3,422	4,552	4,234	318
7	Distribution	167,321	144,418	22,903	20,793	17,947	2,846
8	General						
9	Total	\$738,312	\$684,694	\$53,618	\$75,297	\$69,521	\$5,776

Source: Doss Exhibit 2b and Exhibit 3

ILLUSTRATION SHOWING THE IMPACT OF
AMORTIZING A DEPRECIATION SURPLUS

Line	Place New Investment In Service	
1	Investment	\$100.0
2	Life Span (Years)	20
3	Depreciation Expense	\$5.0
	Year	Depreciation Expense
4	1	\$5.0
5	2	\$5.0
6	3	\$5.0
7	4	\$5.0
8	5	\$5.0
9	6	\$5.0
10	7	\$5.0
11	8	\$5.0
12	9	\$5.0
13	10	\$5.0
14	Total Years 1-10	\$50.0

ILLUSTRATION SHOWING THE IMPACT OF
AMORTIZING A DEPRECIATION SURPLUS

<u>Line</u>	<u>10-Year Life Extension in Year 10</u>	
1	Theoretical Reserve	\$33.3
2	Book Reserve	<u>\$50.0</u>
3	Depreciation Surplus	<u><u>\$16.7</u></u>

ILLUSTRATION SHOWING THE IMPACT OF
AMORTIZING A DEPRECIATION SURPLUS

Line	Amortize Surplus Over 5 Years	
	Year	Depreciation Expense
1	Years 11-15	\$0.0
2	Years 16-30	\$3.3
3	11	\$0.0
4	12	\$0.0
5	13	\$0.0
6	14	\$0.0
7	15	\$0.0
8	16	\$3.3
9	17	\$3.3
10	18	\$3.3
11	19	\$3.3
12	20	\$3.3
13	21	\$3.3
14	22	\$3.3
15	23	\$3.3
16	24	\$3.3
17	25	\$3.3
18	26	\$3.3
19	27	\$3.3
20	28	\$3.3
21	29	\$3.3
22	30	\$3.3
23	Total Years 11-30	\$50.0
24	Total Years 1-10	\$50.0
25	Grand Total	\$100.0
Costs Paid By Past/Future Customers		
26	Years 1-15	\$50.0
27	Years 16-30	\$50.0
28	Grand Total	\$100.0

ILLUSTRATION SHOWING THE IMPACT OF
AMORTIZING A DEPRECIATION SURPLUS

Line	Use Remaining Life Method (per KU's)	
1	Remaining Investment	\$50.0
2	Life Span	20
3	Depreciation Expense	\$2.5
	Year	Depreciation Expense
4	11	\$2.5
5	12	\$2.5
6	13	\$2.5
7	14	\$2.5
8	15	\$2.5
9	16	\$2.5
10	17	\$2.5
11	18	\$2.5
12	19	\$2.5
13	20	\$2.5
14	21	\$2.5
15	22	\$2.5
16	23	\$2.5
17	24	\$2.5
18	25	\$2.5
19	26	\$2.5
20	27	\$2.5
21	28	\$2.5
22	29	\$2.5
23	30	\$2.5
24	Total Years 11-30	\$50.0
	Costs Paid By Past/Future Customers	
25	Years 1-15	\$62.5
26	Years 16-30	\$37.5
27	Grand Total	\$100.0

DUKE ENERGY PROGRESS, LLC
Estimated Impact of Recognizing Curtailable Service
On DEP's Class Cost-of-Service Study Results
1 Summer CP Demand Allocation
Test Year Ended December 31, 2017

Line	Description	SC RETAIL	SC RES	SC SGS	SC SGS-CLR	SC MGS
		(1)	(2)	(3)	(4)	(5)
CCOSS Results Per DEP:						
1	Net Operating Income	\$62,417,986	\$18,982,916	\$2,893,941	\$6,910	\$23,707,783
2	Rate Base	\$1,521,662,201	\$700,798,897	\$111,703,035	\$1,440,144	\$340,793,395
3	Rate of Return (Line 1 ÷ Line 2)	4.10%	2.71%	2.59%	0.48%	6.96%
4	RROR	100%	66%	63%	12%	170%
Corrected CCOSS Results:						
5	Assumed Curtailable Credits	\$10,000,000	\$0	\$0	\$0	\$0
6	Firm Peak Demand Allocator (Pollock Exhibit 3)	100.00%	43.86%	7.19%	0.05%	29.11%
7	Reallocate Curtailable Credits	(\$10,000,000)	(\$4,386,252)	(\$719,476)	(\$5,488)	(\$2,911,248)
8	Impact on Net Operating Income [(Line 5 + Line 7) ÷ 1.3324]	(\$0)	(\$3,291,993)	(\$539,985)	(\$4,119)	(\$2,184,966)
9	Adjusted Net Operating Income (Line 1 + Line 8)	\$62,417,986	\$15,690,923	\$2,353,956	\$2,791	\$21,522,817
10	Corrected Rate of Return (Line 9 ÷ Line 2)	4.10%	2.24%	2.11%	0.19%	6.32%
11	Corrected RROR	100	55	51	5	154

DUKE ENERGY PROGRESS, LLC
Estimated Impact of Recognizing Curtailable Service
On DEP's Class Cost-of-Service Study Results
1 Summer CP Demand Allocation
Test Year Ended December 31, 2017

Line	Description	SC LGS	SC SI	SC TSS	SC ALS	SC SLS	SC SFL
		(6)	(7)	(8)	(9)	(10)	(11)
CCOSS Results Per DEP:							
1	Net Operating Income	\$9,561,177	\$499,706	(\$14,585)	\$6,643,223	\$118,488	\$18,426
2	Rate Base	\$297,725,603	\$5,538,141	\$290,126	\$37,665,015	\$25,631,445	\$76,400
3	Rate of Return (Line 1 ÷ Line 2)	3.21%	9.02%	-5.03%	17.64%	0.46%	24.12%
4	RROR	78%	220%	-123%	430%	11%	588%
Corrected CCOSS Results:							
5	Assumed Curtailable Credits	\$10,000,000	\$0	\$0	\$0	\$0	\$0
6	Firm Peak Demand Allocator (Pollock Exhibit 3)	19.51%	0.25%	0.01%	0.00%	0.00%	0.00%
7	Reallocate Curtailable Credits	(\$1,951,444)	(\$25,101)	(\$991)	\$0	\$0	\$0
8	Impact on Net Operating Income [(Line 5 + Line 7) ÷ 1.3324]	\$6,040,646	(\$18,839)	(\$744)	\$0	\$0	\$0
9	Adjusted Net Operating Income (Line 1 + Line 8)	\$15,601,822	\$480,867	(\$15,329)	\$6,643,223	\$118,488	\$18,426
10	Corrected Rate of Return (Line 9 ÷ Line 2)	5.24%	8.68%	-5.28%	17.64%	0.46%	24.12%
11	Corrected RROR	128	212	(129)	430	11	588

DUKE ENERGY PROGRESS, LLC
Estimated Firm Peak Demand Allocation Factors
Test Year Ended December 31, 2017

Line	Rate Schedule	Summer 1CP Demand (kW)	Estimated Curtable Load (kW)	Firm Peak Demand	
				(kW)	Percent
		(1)	(2)	(3)	(4)
1	SC RES	487,425		487,425	43.86%
2	SC SGS	79,952		79,952	7.19%
3	SC SGS-CLR	610		610	0.05%
4	SC MGS	323,515		323,515	29.11%
5	SC LGS	291,026	74,170	216,856	19.51%
6	SC SI	2,789		2,789	0.25%
7	SC TSS	110		110	0.01%
8	SC ALS	0		0	0.00%
9	SC SLS	0		0	0.00%
10	SC SFLS	0		0	0.00%
11	Total SC Retail	1,185,427	74,170	1,111,257	100.00%